

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
23 December 2004 (23.12.2004)

PCT

(10) International Publication Number
WO 2004/111616 A1

(51) International Patent Classification⁷: **G01N 3/42**,
G03G 15/00, G01N 33/34

(21) International Application Number:
PCT/JP2004/008495

(22) International Filing Date: 10 June 2004 (10.06.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
2003-168343 12 June 2003 (12.06.2003) JP
2004-169853 8 June 2004 (08.06.2004) JP

(71) Applicants (for all designated States except US): **CANON KABUSHIKI KAISHA** [JP/JP]; 3-30-2, Shimomaruko, Ohta-ku, Tokyo 1468501 (JP). **CANON DENSHI KABUSHIKI KAISHA** [JP/JP]; 1248, Ohaza Shimokagemori, Chichibu-shi, Saitama 3691892 (JP).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **KAWASAKI, Takehiko** [JP/JP]; c/o CANON KABUSHIKI KAISHA, 3-30-2,

Shimomaruko, Ohta-ku, Tokyo 1468501 (JP). **KANEKO, Norio** [JP/JP]; c/o CANON KABUSHIKI KAISHA, 3-30-2, Shimomaruko, Ohta-ku, Tokyo 1468501 (JP). **MARUYAMA, Naoaki** [JP/JP]; c/o CANON DENSHI KABUSHIKI KAISHA, 1248, Ohaza Shimokagemori, Chichibu-shi, Saitama 3691892 (JP).

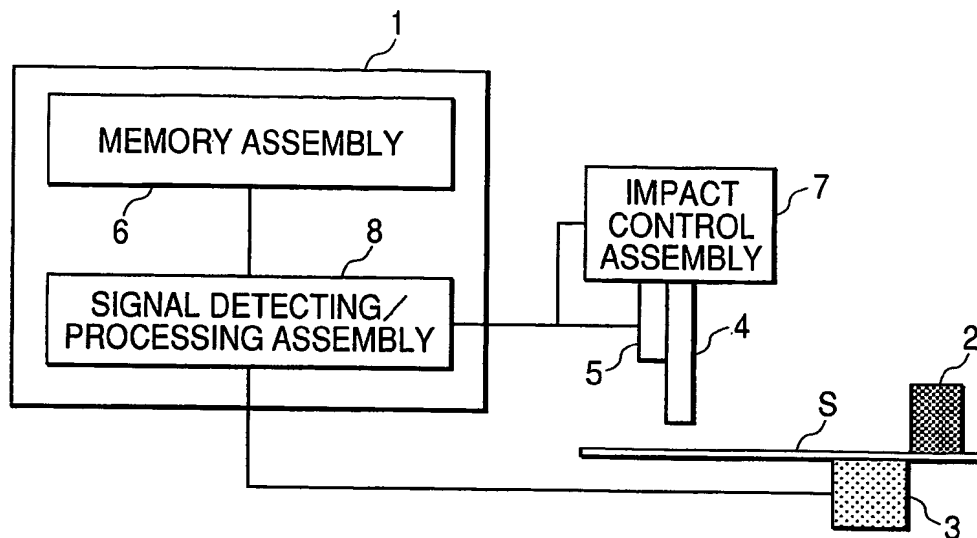
(74) Agents: **OKABE, Masao** et al.; No. 602, Fuji Bldg., 2-3, Marunouchi 3-chome, Chiyoda-ku, Tokyo 1000005 (JP).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI,

[Continued on next page]

(54) Title: DEVICE AND METHOD FOR IDENTIFYING TYPES OF SHEET MATERIALS



(57) Abstract: To provide a sheet material identifying apparatus for identifying the kind of a sheet material, including an adjusting assembly for dehumidifying or humidifying a predetermined region of the sheet material and adjusting the moisture content of the predetermined region, external force applying means for applying an external force to the predetermined region of the sheet material whose moisture content is adjusted and detecting means for detecting an external force propagated through the sheet while the external force is applied by the external force applying means; wherein an external force is applied to the predetermined region whose moisture content is adjusted through the adjusting assembly by the external force applying means and the kind of a sheet material is identified in accordance with the external force propagated through the sheet detected by the detecting means.



FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI,
SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ,
GW, ML, MR, NE, SN, TD, TG).

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

Published:

— *with international search report*